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IMAGES IN CARDIOLOGY

3-Dimensional Transesophageal Echocardiography–Guided Closure of a Gerbode Shunt Due to CorMatrix Patch Dehiscence

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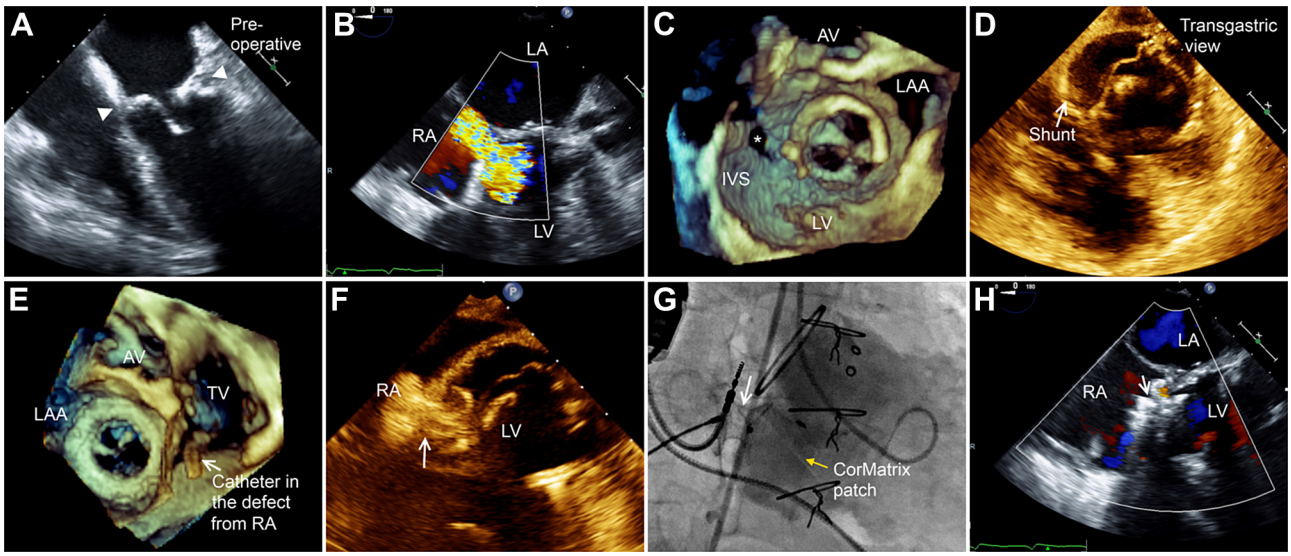

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A 75-year-old woman with symptomatic mitral stenosis due to severe dystrophic calcification of the mitral annulus **(A, arrowheads)** underwent resection of the calcium bar with reconstruction of the base of the heart from the lateral to the medial fibrous trigone and ventricular septum using CorMatrix patches (Alpharetta, Georgia) and mitral valve replacement with a Hancock II bioprosthesis. Post-operatively, the patient developed biventricular failure and a loud murmur. A transesophageal echocardiogram (TEE) demonstrated a large left ventricle to right atrial communication measuring 7 × 11 mm (**B, C [*]**, Online Videos 1 and 2) due to dehiscence of the CorMatrix patch (**D**, Online Video 3). Due to the complexity of the shunt, 3-dimensional TEE guidance was used (**E**, Online Video 4) to close the defect percutaneously using a 14-mm Amplatzer VSD occluder (**F to H**, **arrows**, Online Videos 5, 6, and 7) with trivial residual shunt **(H)** and significant clinical improvement. We report the first case of 3-dimensional TEE-guided closure of a Gerbode shunt.

AV = aortic valve; IVS = interventricular septum; LA = left atrium; LAA = left atrial appendage; LV = left ventricle; RA = right atrium; TV = tricuspid valve.